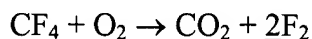


## IN THE SPECIFICATION:

Please amend the paragraph at page 2, line 23 as follows:



Please amend the specification at page 3, line 28 to page 4, line 6, as follows:

A method for processing PFC in accordance with a first embodiment of the present invention ~~claim 1~~ is a method for processing PFC that is used in a manufacturing process for semiconductor devices or the like. The method is characterized in that the PFC that is used under a reduced pressure is brought under the atmospheric pressure through a vacuum pump, then a reactive material is added to the PFC, and a plasma process is conducted for a mixed gas of the PFC and the reactive material to thereby generate a polymer with the PFC and the reactive material. The semiconductor devices or the like described above do not only represent semiconductor devices but also represent a wider concept including liquid crystal devices and a variety of light-emitting devices.

Please amend the specification at page 4, lines 7-14, as follows:

By the method for processing PFC in accordance with ~~claim~~ [[1,]] the first embodiment, the mixed gas, after being brought under the atmospheric pressure, is subject to a plasma process. Therefore, the plasma process is conducted in a succeeding stage of the vacuum pump. Accordingly, the reacted products after the plasma process are not transferred through the vacuum pump, and therefore the vacuum pump is prevented from being damaged by the reacted products. Also, since the section where the plasma process is conducted is set under the atmospheric pressure environment, maintenance and inspection works on the plasma process section can be readily conducted.

Please amend the specification at page 4, lines 20-21, as follows:

A method for processing PFC according to a second embodiment of the present invention ~~claim 2~~ is characterized in that the reactive material is gas of paraffin hydrocarbon or alcohol.

Please amend the specification at page 4, lines 22-25, as follows:

According to the method for processing PFC recited in ~~claim~~ [[2,]] the second embodiment, fluoride compound gas and paraffin-hydrocarbon gas are subject to a plasma process to cause a reaction shown below. In one embodiment, carbon tetrafluoride is used as the fluoride compound gas, and methane is used as the paraffin-hydrocarbon gas.

Please amend the specification at page 5, lines 8-12, as follows:

A method for processing PFC in accordance with a third embodiment of the present invention ~~claim 3~~ is a method for processing PFC that is used in a process for manufacturing semiconductor devices or the like. The method is characterized in that the PFC that is used under a reduced pressure is brought under the atmospheric pressure through a vacuum pump, then water and/or oxygen is added to the PFC, and a plasma process is conducted to decompose the PFC.

Please amend the specification at page 5, lines 13-20, as follows:

By the method for processing PFC in accordance with ~~claim~~ [[3,]] the third embodiment, the PFC, after being brought under the atmospheric pressure, is subject to a plasma process. Therefore, the plasma process is conducted in a succeeding stage of the vacuum pump. Accordingly, the reacted products after the plasma process do not pass through the vacuum pump, and therefore the vacuum pump is prevented from being damaged by the reacted products. Also, since the section where the plasma process is conducted is set under the atmospheric

pressure environment, maintenance and inspection works on the plasma process section can be readily conducted.

Please amend the specification at page 5, lines 24-26, as follows:

An apparatus for processing PFC in accordance with a fourth embodiment of the present invention ~~claim~~ <sup>[[4]]</sup> is an apparatus for processing PFC to be disposed in a succeeding stage of a vacuum pump that is connected to a vacuum chamber that is used in a process for manufacturing semiconductor devices or the like.

Please amend the specification at page 6, lines 3-10, as follows:

By the apparatus for processing PFC in accordance with ~~claim~~ <sup>[[4,]]</sup> fourth embodiment, since the mixed gas, after being brought under the atmospheric pressure, is subject to a plasma process, the plasma process section is disposed in a succeeding stage of the vacuum pump. Accordingly, the reacted products after the plasma process are not transferred through the vacuum pump, and therefore the vacuum pump is prevented from being damaged by the reacted products. Also, since the section where the plasma process is conducted is set under the atmospheric pressure environment, maintenance and inspection works on the plasma process section can be readily conducted.

Please amend the specification at page 6, lines 16-17, as follows:

An apparatus for processing PFC according to a fifth embodiment of the present invention ~~claim-5~~ is characterized in that the reactive material is gas of paraffin hydrocarbon or alcohol.

Please amend the specification at page 6, lines 18-27, as follows:

\_\_\_\_\_. According to the apparatus for processing PFC recited in ~~claim~~ [[5,]] the fifth embodiment, fluoride compound gas and the paraffin hydrocarbon gas or alcohol are subject to a plasma process to thereby form polymers. For example, carbon tetrafluoride is used as the fluoride compound gas, and methane is used as the paraffin-hydrocarbon gas. As a result, harmless polymer of fluoride resin is generated. Therefore, the process for PFC can be completed by merely collecting the polymer. Furthermore, although hydrogen fluoride having a strong acidity is also generated with the polymer, the vacuum pump is prevented from being eroded by the hydrogen fluoride because the vacuum pump is disposed in a preceding stage. Also, when alcohol is used as the reactive material, in addition to the effects described above, it is easy to handle in, for example, transportation because the alcohol is a liquid.

Please amend the specification at page 6, lines 28-30, as follows:

An apparatus for processing PFC in accordance with a sixth embodiment of the present invention ~~claim 6~~ is an apparatus for processing PFC to be disposed in a succeeding stage of a vacuum pump that is connected to a vacuum chamber that is used in a process for manufacturing semiconductor devices or the like.

Please amend the specification at page 7, lines 6-13, as follows:

By the apparatus for processing PFC in accordance with ~~claim~~ [[6,]] the sixth embodiment, the PFC after being brought under the atmospheric pressure is subject to a plasma process. Therefore, the plasma process is conducted in a succeeding stage of the vacuum pump. Accordingly, the reacted products after the plasma process do not pass through the vacuum pump, and therefore the vacuum pump is prevented from being damaged by the reacted products. Also, since the section where the plasma process is conducted is set under the atmospheric pressure environment, maintenance and inspection works on the plasma process section can be readily conducted.

Please amend the specification at page 7, lines 17-21, as follows:

An apparatus for processing PFC according to a seventh embodiment of the present invention ~~claim 7~~ includes a cyclone collector provided in a succeeding stage of the plasma process section, such that the polymer can be collected by the cyclone collector. By the apparatus for processing PFC according to ~~claim~~ [[7,]] the seventh embodiment, circular movements can effectively separate the polymer from other gases that are discharged from the piping.

Please amend the specification at page 7, line 22 to page 8, line 4 as follows:

An apparatus for processing PFC according to an eighth embodiment of the present invention ~~claim 8~~ includes a pair of open/close type partition boards provided at the bottom section of the cyclone collector where the polymer deposits, to provide a double chamber structure at the bottom section, wherein deposition and collection of the polymer can be simultaneously conducted by open/close operation of the partition boards. In the apparatus for processing PFC according to ~~claim~~ [[8,]] the eighth embodiment, the bottom section has a double chamber structure formed by the partition boards. Accordingly, while the upper partition board is closed so that the polymer can be deposited over the upper partition board, the lower partition board is opened so that the already deposited polymer can be taken out from cyclone collector. Then, the lower side partition board is closed, and the upper side partition board is opened such that the polymer deposited on the upper side partition board drops onto the lower side partition board. By repeating these operations, the polymer can be taken out from the cyclone collector while the cyclone collector is being operated.

Please amend the paragraph at page 12, lines 3-8, as follows:

In accordance with the embodiment of the present invention, tetrafluoride is used as the PFC. However, the present invention is not limited to this embodiment, and for example,  $[[C_4H_8]]$   $C_4F_8$ ,  $C_2F_6$  and  $SF_6$  (i.e., fluoride compound gases) can be used. Further, methane is used in as the reactive gas. However, the present invention is not limited to this embodiment, and for example,  $C_2H_6$ ,  $[[C_3F_8]]$   $C_3H_8$  and  $C_4H_{10}$  or  $CH_3OH$  and  $C_2H_5OH$  (i.e., paraffin hydrocarbon gases or alcohol) can be used.

Please amend the paragraph on page 13, lines 5-10, as follows:

Fig. 3 is an explanatory view of a structure in which the PFC processing apparatus in accordance with one embodiment of the present invention is applied. As shown in the figure, a processing apparatus  $[[48]]$  has a vacuum chamber, a vacuum pump and a plasma process section that have the same structures as those of the processing apparatus 10. Therefore, the same reference numerals as those used for the processing apparatus 10 are used, and the description thereof in the present example is omitted.